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(FILE 'HOME' ENTERED AT 18:49:53 ON 28 JUN 2005)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, LIFESCI' ENTERED AT 18:50:06 ON 28 JUN 2005

L1 0 S N-CPAT OR C-CPAT  
L2 112 S (CARBOXY OR C OR N) (W) TERMINAL (7A) ALPHA-TOXIN  
L3 23005 S CLOSTRIDIUM (W) PERFRINGENS  
L4 66 S L2 AND L3  
L5 1308711 S RECONSTITUT? OR RECOMBIN?  
L6 5 S L4 AND L5  
L7 8 S ANTIBODY AND L4  
L8 2 S ANTIBODY AND L6  
L9 19 DUP REM L4 (47 DUPLICATES REMOVED)  
L10 5 DUP REM L6 (0 DUPLICATES REMOVED)  
L11 4 DUP REM L7 (4 DUPLICATES REMOVED)  
L12 2 DUP REM L8 (0 DUPLICATES REMOVED)

=> d au ti so pi 1-2 l12

L12 ANSWER 1 OF 2 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AU Titball, Richard W [Inventor, Reprint Author]; Carr, Francis J [Inventor]  
TI Pharmaceuticals and assays using enzyme subunits.  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(Oct 29 2002) Vol. 1263, No. 5. <http://www.uspto.gov/web/menu/patdata.html>  
. e-file.  
ISSN: 0098-1133 (ISSN print).  
PI US 6472365 20021029

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
IN Titball, Richard William; Carr, Francis Joseph  
TI Pharmaceuticals and assays using enzyme subunits  
SO PCT Int. Appl., 36 pp.  
CODEN: PIXXD2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9625952	A1	19960829	WO 1996-GB380	19960221
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2213566	AA	19960829	CA 1996-2213566	19960221
AU 9647259	A1	19960911	AU 1996-47259	19960221
AU 714396	B2	20000106		
EP 810880	A1	19971210	EP 1996-903111	19960221
EP 810880	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
CN 1182372	A	19980520	CN 1996-193434	19960221
JP 11500136	T2	19990106	JP 1996-525485	19960221
AT 224204	E	20021015	AT 1996-903111	19960221
PT 810880	T	20030228	PT 1996-903111	19960221
ES 2182962	T3	20030316	ES 1996-903111	19960221
ZA 9601427	A	19960807	ZA 1996-1427	19960222
US 6472365	B1	20021029	US 1998-894527	19980316
US 2002035084	A1	20020321	US 2001-989130	20011121

=> d au ti so pi 1-4 l11

L11 ANSWER 1 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AU Titball, Richard W [Inventor, Reprint Author]; Carr, Francis J [Inventor]

TI Pharmaceuticals and assays using enzyme subunits.  
 SO Official Gazette of the United States Patent and Trademark Office Patents,  
 (Oct 29 2002) Vol. 1263, No. 5. <http://www.uspto.gov/web/menu/patdata.html>  
 . e-file.  
 ISSN: 0098-1133 (ISSN print).  
 PI US 6472365 20021029

L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 IN Titball, Richard William; Carr, Francis Joseph  
 TI Pharmaceuticals and assays using enzyme subunits  
 SO PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9625952	A1	19960829	WO 1996-GB380	19960221
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2213566	AA	19960829	CA 1996-2213566	19960221
AU 9647259	A1	19960911	AU 1996-47259	19960221
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EP 810880	A1	19971210	EP 1996-903111	19960221
EP 810880	B1	20020918		
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CN 1182372	A	19980520	CN 1996-193434	19960221
JP 11500136	T2	19990106	JP 1996-525485	19960221
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ES 2182962	T3	20030316	ES 1996-903111	19960221
ZA 9601427	A	19960807	ZA 1996-1427	19960222
US 6472365	B1	20021029	US 1998-894527	19980316
US 2002035084	A1	20020321	US 2001-989130	20011121

L11 ANSWER 3 OF 4 MEDLINE on STN DUPLICATE 1  
 AU Ginter A; Williamson E D; Dessy F; Coppe P; Bullifent H; Howells A;  
 Titball R W  
 TI Molecular variation between the alpha-toxins from the type strain (NCTC 8237) and clinical isolates of **Clostridium perfringens** associated with disease in man and animals.  
 SO Microbiology (Reading, England), (1996 Jan) 142 ( Pt 1) 191-8.  
 Journal code: 9430468. ISSN: 1350-0872.

L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 IN Titball, Richard William; Williamson, Ethel Diane  
 TI Manufacture of **Clostridium perfringens**  $\alpha$ -toxin antigens for use in vaccines  
 SO PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323543	A1	19931125	WO 1993-GB1039	19930520
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9343342	A1	19931213	AU 1993-43342	19930520
AU 671838	B2	19960912		
CN 1084407	A	19940330	CN 1993-107585	19930520
CN 1057533	B	20001018		
EP 642581	A1	19950315	EP 1993-913200	19930520
EP 642581	B1	20021023		

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GB 2283020	A1	19950426	GB 1994-22512	19930520
GB 2283020	B2	19960501		
JP 07506725	T2	19950727	JP 1993-520025	19930520
JP 3370672	B2	20030127		
AT 226635	E	20021115	AT 1993-913200	19930520
PT 642581	T	20030331	PT 1993-913200	19930520
ES 2185631	T3	20030501	ES 1993-913200	19930520
ZA 9303574	A	19931213	ZA 1993-3574	19930521
US 5817317	A	19981006	US 1994-341538	19941128
US 5851827	A	19981222	US 1996-725518	19961004

=> d au ti so pi 1-5 l10

L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN  
 AU Lin, Minghui; Yin, Jun; Wang, Hui; Hou, Xiaojun; Song, Wei; Xing, Hongguang  
 TI High expression of **recombinant alpha-toxin's C-terminal** gene of **Clostridium perfringens** type A in E. coli  
 SO Zhongguo Shengwu Gongcheng Zazhi (2003), 23(12), 91-94  
 CODEN: ZSGZAW; ISSN: 1671-8135

L10 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 AU Titball, Richard W [Inventor, Reprint Author]; Carr, Francis J [Inventor]  
 TI Pharmaceuticals and assays using enzyme subunits.  
 SO Official Gazette of the United States Patent and Trademark Office Patents, (Oct 29 2002) Vol. 1263, No. 5. <http://www.uspto.gov/web/menu/patdata.html> e-file.  
 ISSN: 0098-1133 (ISSN print).  
 PI US 6472365 20021029

L10 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN  
 IN Titball, Richard William; Carr, Francis Joseph  
 TI Pharmaceuticals and assays using enzyme subunits  
 SO PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2

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W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
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CA 2213566	AA	19960829	CA 1996-2213566	19960221
AU 9647259	A1	19960911	AU 1996-47259	19960221
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EP 810880	A1	19971210	EP 1996-903111	19960221
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JP 11500136	T2	19990106	JP 1996-525485	19960221
AT 224204	E	20021015	AT 1996-903111	19960221
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US 2002035084	A1	20020321	US 2001-989130	20011121

L10 ANSWER 4 OF 5 MEDLINE on STN  
 AU Titball R W; Fearn A M; Williamson E D

TI Biochemical and immunological properties of the C-  
**terminal** domain of the **alpha-toxin** of  
**Clostridium perfringens**.  
SO FEMS microbiology letters, (1993 Jun 1) 110 (1) 45-50.  
Journal code: 7705721. ISSN: 0378-1097.

L10 ANSWER 5 OF 5 MEDLINE on STN  
AU Leslie D; Fairweather N; Pickard D; Dougan G; Kehoe M  
TI Phospholipase C and haemolytic activities of **Clostridium**  
**perfringens** alpha-toxin cloned in Escherichia coli: sequence and  
homology with a Bacillus cereus phospholipase C.  
SO Molecular microbiology, (1989 Mar) 3 (3) 383-92.  
Journal code: 8712028. ISSN: 0950-382X.

=> d au ti so 1-19 19

L9 ANSWER 1 OF 19 MEDLINE on STN DUPLICATE 1  
AU Stevens Dennis L; Titball Richard W; Jepson Marie; Bayer Clifford R;  
Hayes-Schroer Susan M; Bryant Amy E  
TI Immunization with the C-Domain of alpha -Toxin prevents lethal infection,  
localizes tissue injury, and promotes host response to challenge with  
**Clostridium perfringens**.  
SO Journal of infectious diseases, (2004 Aug 15) 190 (4) 767-73. Electronic  
Publication: 2004-07-19.  
Journal code: 0413675. ISSN: 0022-1899.

L9 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN  
AU Lin, Minghui; Yin, Jun; Wang, Hui; Hou, Xiaojun; Song, Wei; Xing,  
Hongguang  
TI High expression of recombinant **alpha-toxin's C**  
**-terminal** gene of **Clostridium perfringens**  
type A in E. coli  
SO Zhongguo Shengwu Gongcheng Zazhi (2003), 23(12), 91-94  
CODEN: ZSGZAW; ISSN: 1671-8135

L9 ANSWER 3 OF 19 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
AU Titball, Richard W [Inventor, Reprint Author]; Carr, Francis J [Inventor]  
TI Pharmaceuticals and assays using enzyme subunits.  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(Oct 29 2002) Vol. 1263, No. 5. <http://www.uspto.gov/web/menu/patdata.html>  
. e-file.  
ISSN: 0098-1133 (ISSN print).

L9 ANSWER 4 OF 19 MEDLINE on STN DUPLICATE 2  
AU Eaton Julian T; Naylor Claire E; Howells Angela M; Moss David S; Titball  
Richard W; Basak Ajit K  
TI Crystal structure of the C. perfringens alpha-toxin with the active site  
closed by a flexible loop region.  
SO Journal of molecular biology, (2002 May 31) 319 (2) 275-81.  
Journal code: 2985088R. ISSN: 0022-2836.

L9 ANSWER 5 OF 19 MEDLINE on STN DUPLICATE 3  
AU Jepson M; Bullifent H L; Crane D; Flores-Diaz M; Alape-Giron A;  
Jayasekeera P; Lingard B; Moss D; Titball R W  
TI Tyrosine 331 and phenylalanine 334 in **Clostridium**  
**perfringens** alpha-toxin are essential for cytotoxic activity.  
SO FEBS letters, (2001 Apr 27) 495 (3) 172-7.  
Journal code: 0155157. ISSN: 0014-5793.

L9 ANSWER 6 OF 19 MEDLINE on STN DUPLICATE 4  
AU Nagahama M; Mukai M; Ochi S; Sakurai J  
TI Role of tryptophan-1 in hemolytic and phospholipase C activities of

- Clostridium perfringens** alpha-toxin.
- SO Microbiology and immunology, (2000) 44 (7) 585-9.  
Journal code: 7703966. ISSN: 0385-5600.
- L9 ANSWER 7 OF 19 MEDLINE on STN DUPLICATE 5
- AU Walker N; Holley J; Naylor C E; Flores-Diaz M; Alape-Giron A; Carter G;  
Carr F J; Thelestam M; Keyte M; Moss D S; Basak A K; Miller J; Titball R W
- TI Identification of residues in the **carboxy-terminal**  
domain of **Clostridium perfringens** alpha-  
**toxin** (phospholipase C) which are required for its biological  
activities.
- SO Archives of biochemistry and biophysics, (2000 Dec 1) 384 (1) 24-30.  
Journal code: 0372430. ISSN: 0003-9861.
- L9 ANSWER 8 OF 19 MEDLINE on STN DUPLICATE 6
- AU Naylor C E; Jepson M; Crane D T; Titball R W; Miller J; Basak A K;  
Bolgiano B
- TI Characterisation of the calcium-binding **C-terminal**  
domain of **Clostridium perfringens** alpha-  
**toxin**.
- SO Journal of molecular biology, (1999 Dec 3) 294 (3) 757-70.  
Journal code: 2985088R. ISSN: 0022-2836.
- L9 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
- AU Justin, Neil; Eaton, Julian; Naylor, Claire; Howells, Angela; Moss, David;  
Titball, Richard; Basak, Ajit
- TI Structure function studies of **Clostridium perfringens**  
alpha-toxin; A gas gangrene causing protein
- SO Journal of the Chemical Society of Pakistan (1999), 21(3), 239-247  
CODEN: JCSPDF; ISSN: 0253-5106
- L9 ANSWER 10 OF 19 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN
- AU vanTilbeurgh H (Reprint); Bezzine S; Cambillau C; Verger R; Carriere F
- TI Colipase: structure and interaction with pancreatic lipase
- SO BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR AND CELL BIOLOGY OF LIPIDS, (23  
NOV 1999) Vol. 1441, No. 2-3, pp. 173-184.  
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM,  
NETHERLANDS.  
ISSN: 1388-1981.
- L9 ANSWER 11 OF 19 MEDLINE on STN DUPLICATE 7
- AU Nagahama M; Michiue K; Mukai M; Ochi S; Sakurai J
- TI Mechanism of membrane damage by **Clostridium perfringens**  
alpha-toxin.
- SO Microbiology and immunology, (1998) 42 (8) 533-8.  
Journal code: 7703966. ISSN: 0385-5600.
- L9 ANSWER 12 OF 19 MEDLINE on STN DUPLICATE 8
- AU Guillouard I; Alzari P M; Saliou B; Cole S T
- TI The **carboxy-terminal** C2-like domain of the  
**alpha-toxin** from **Clostridium**  
**perfringens** mediates calcium-dependent membrane recognition.
- SO Molecular microbiology, (1997 Dec) 26 (5) 867-76.  
Journal code: 8712028. ISSN: 0950-382X.
- L9 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
- IN Titball, Richard William; Carr, Francis Joseph
- TI Pharmaceuticals and assays using enzyme subunits
- SO PCT Int. Appl., 36 pp.  
CODEN: PIXXD2
- L9 ANSWER 14 OF 19 MEDLINE on STN DUPLICATE 9

AU Ginter A; Williamson E D; Dessy F; Coppe P; Bullifent H; Howells A;  
Titball R W

TI Molecular variation between the alpha-toxins from the type strain (NCTC  
8237) and clinical isolates of **Clostridium perfringens**  
associated with disease in man and animals.

SO Microbiology (Reading, England), (1996 Jan) 142 ( Pt 1) 191-8.  
Journal code: 9430468. ISSN: 1350-0872.

  

L9 ANSWER 15 OF 19 MEDLINE on STN DUPLICATE 10

AU Nagahama M; Iida H; Nishioka E; Okamoto K; Sakurai J

TI Roles of the **carboxy-terminal** region of  
**Clostridium perfringens alpha toxin**.

SO FEMS microbiology letters, (1994 Jul 15) 120 (3) 297-301.  
Journal code: 7705721. ISSN: 0378-1097.

  

L9 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

IN Titball, Richard William; Williamson, Ethel Diane

TI Manufacture of **Clostridium perfringens**  $\alpha$ -toxin  
antigens for use in vaccines

SO PCT Int. Appl., 29 pp.  
CODEN: PIXXD2

  

L9 ANSWER 17 OF 19 MEDLINE on STN DUPLICATE 11

AU Titball R W; Fearn A M; Williamson E D

TI Biochemical and immunological properties of the **C-**  
**terminal** domain of the **alpha-toxin** of  
**Clostridium perfringens**.

SO FEMS microbiology letters, (1993 Jun 1) 110 (1) 45-50.  
Journal code: 7705721. ISSN: 0378-1097.

  

L9 ANSWER 18 OF 19 MEDLINE on STN DUPLICATE 12

AU Titball R W; Leslie D L; Harvey S; Kelly D

TI Hemolytic and sphingomyelinase activities of **Clostridium**  
**perfringens** alpha-toxin are dependent on a domain homologous to  
that of an enzyme from the human arachidonic acid pathway.

SO Infection and immunity, (1991 May) 59 (5) 1872-4.  
Journal code: 0246127. ISSN: 0019-9567.

  

L9 ANSWER 19 OF 19 MEDLINE on STN DUPLICATE 13

AU Leslie D; Fairweather N; Pickard D; Dougan G; Kehoe M

TI Phospholipase C and haemolytic activities of **Clostridium**  
**perfringens** alpha-toxin cloned in Escherichia coli: sequence and  
homology with a Bacillus cereus phospholipase C.

SO Molecular microbiology, (1989 Mar) 3 (3) 383-92.  
Journal code: 8712028. ISSN: 0950-382X.

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<b>Database:</b>	US Pre-Grant Publication Full-Text Database
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	Derwent World Patents Index
	IBM Technical Disclosure Bulletins

  

<b>Term:</b>	antibody and l6
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### Search History

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<u>L7</u>	antibody and l6	4	<u>L7</u>
<u>L6</u>	l4 and L5	4	<u>L6</u>
<u>L5</u>	reconstitut\$ or recombina\$	181651	<u>L5</u>
<u>L4</u>	l2 and L3	4	<u>L4</u>
<u>L3</u>	clostridium adj perfringens	2446	<u>L3</u>
<u>L2</u>	(carboxy or c or n) adj terminal near7 alpha-toxin	4	<u>L2</u>
<u>L1</u>	c-cpat or n-cpat	2	<u>L1</u>

END OF SEARCH HISTORY

[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 4 of 4 returned.**

- ☐ 1. [20020035084](#). 21 Nov 01. 21 Mar 02. Pharmaceuticals and assays using enzyme subunits. Titball, Richard W., et al. 514/44; 424/146.1 A61K048/00 A61K039/395.
- ☐ 2. [6472365](#). 16 Mar 98; 29 Oct 02. Pharmaceuticals and assays using enzyme subunits. Titball; Richard W, et al. 514/1; 424/130.1 424/134.1 424/141.1 424/152.1 514/2. A01N061/00 A01N037/18 A61K039/395.
- ☐ 3. [5851827](#). 04 Oct 96; 22 Dec 98. DNA encoding clostridium perfringens alpha-toxin peptides. Titball; Richard William, et al. 435/325; 435/243 435/320.1 435/410 536/23.1 536/23.4 536/23.7. C12N005/10 C12N001/00 C12N015/11 C12N015/63.
- ☐ 4. [5817317](#). 28 Nov 94; 06 Oct 98. Clostridium perfringens vaccines. Titball; Richard William, et al. 424/190.1; 424/192.1 424/197.11 424/239.1 435/69.3 436/544 436/545 436/546 530/324 530/402 530/412 530/825. A61K039/08 C07K014/33.

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Terms	Documents
antibody and L6	4

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PALM INTRANET

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**Inventor Name Search Result**

Your Search was:

Last Name = TITBALL

First Name = RICHARD

Application#	Patent#	Status	Date Filed	Title	Inventor Name 16
<a href="#">10754628</a>	Not Issued	019	01/12/2004	TYPE F BOTULINUM TOXIN AND USE THEREOF	TITBALL, RICHARD W.
<a href="#">10505809</a>	Not Issued	020	05/12/2005	SCREENING PROCESS	TITBALL, RICHARD WILLIAM
<a href="#">10478981</a>	Not Issued	030	06/02/2004	IDENTIFYING MICRO-ORGANISMS	TITBALL, RICHARD WILLIAM
<a href="#">10332282</a>	Not Issued	030	04/11/2003	EXPRESSION SYSTEM	TITBALL, RICHARD WILLIAM
<a href="#">10070882</a>	Not Issued	041	03/11/2002	RECOMBINANT MICROORGANISMS	TITBALL, RICHARD WILLIAM
<a href="#">09989130</a>	Not Issued	080	11/21/2001	PHARMACEUTICALS AND ASSAYS USING ENZYME SUBUNITS	TITBALL, RICHARD W.
<a href="#">09142584</a>	6403094	150	09/11/1998	CLOSTRIDIUM PERFRINGENS VACCINES	TITBALL, RICHARD W.
<a href="#">09134869</a>	Not Issued	161	08/17/1998	VACCINE COMPOSITION COMPRISING LIVE BACTERIAL VECTORS FOR PROTECTION AGAINST YERSINA PESTIS INJECTION	TITBALL, RICHARD W.
<a href="#">08981087</a>	Not Issued	094	05/27/1998	TYPE F BOTULINUM TOXIN AND USE THEREOF	TITBALL, RICHARD W.
<a href="#">08913477</a>	5985285	150	09/15/1997	VACCINES FOR PLAGUE	TITBALL, RICHARD WILLIAM
<a href="#">08894527</a>	6472365	150	03/16/1998	PHARMACEUTICALS AND ASSAYS USING ENZYME SUBUNITS	TITBALL, RICHARD WILLIAM
<a href="#">08725518</a>	5851827	150	10/04/1996	DNA ENCODING CLOSTRIDIUM PERFRINGENS ALPHA-TOXIN PEPTIDES	TITBALL, RICHARD W.
<a href="#">08725515</a>	Not Issued	161	10/04/1996	CLOSTRIDIUM PERFRINGENS VACCINES	TITBALL, RICHARD WILLIAM
<a href="#">08704783</a>	Not Issued	161	12/25/1996	VACCINE COMPOSITIONS	TITBALL, RICHARD W.

<u>08666285</u>	Not Issued	161	11/18/1996	VACCINE COMPOSITIONS COMPRISING LIVE BACTERIAL VECTORS FOR PROTECTION AGAINST YERSINIA PESTIS INJECTION	TITBALL, RICHARD W.
<u>08341538</u>	<u>5817317</u>	150	11/28/1994	CLOSTRIDIUM PERFRINGENS VACCINES	TITBALL, RICHARD W.

Inventor Search Completed: No Records to Display.

---

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